FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
Developing an Unified Intercarrier Compensation Regime	)	WC Docket No. 01-92
	)	
	)	

COMMENTS OF HD TANDEM

October 26, 2017

Before the
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HD Tandem appreciates the work the Federal Communications Commission ("FCC" or "the Commission") did to address industry concerns, specifically with regards to intercarrier compensation ("ICC") that eventually led to the adoption of the *2011 USF/ICC Transformation Order and FNPRM* (the "Order" or "Transformation Order").[1] HD Tandem is a nationwide intermediate provider with an emphasis on Internet Protocol ("IP") connectivity between originating carriers and terminating carriers, including carriers terminating to applications. These services are provided on a commercial agreement basis utilizing next generation voice technologies with CODEC[2] independence and the ability to innovate providing for improved voice quality and user experience. In the areas that HD Tandem serves, approximately two-thirds of traffic has transitioned to IP using the HD Tandem network. HD Tandem has no end users and files no tariffs. As an intermediate provider, HD Tandem receives payment from the calling party

[1] *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform – Mobility Fund*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109; GN Docket No. 09-51; CC Docket Nos. 01-92 and 96-45; WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663 (2011) ("*Transformation Order*").

[2] A CODEC is a device or software system that can digitize and often compress an audio or video signal for transmission (as over a telephone line) and convert an incoming signal to audio or video for reception.

carrier and sends the originated traffic to the receiving party at a reduced rate to the originating carrier.

I. The Time is Ripe for a New IP Framework

Understanding the need to spur the Internet Protocol ("IP") Transition, the FCC at last undertook the necessary first step of reforming the ICC system back in 2011. In the 2011 Transformation Order, the FCC adopted a uniform, national regulatory framework that established a glide path transition of terminating switched access rates to bill-and-keep.[3] This new regulatory framework served to give carriers the requested price relief they sought on the terminating access side of the equation over a seven year phase down (longer for rate-of-return carriers), recognizing that a flash cut move to a bill-and-keep framework was not economically sustainable for many carriers.[4] Furthermore, while the FCC identified bill-and-keep as the goal for all telecommunications traffic, the FCC did not choose to transition all components within a particular call path to bill-and-keep immediately, evidencing the fact that such an ultimate transition may not ever be economically feasible for all parties.[5]

HD Tandem agrees with the Commission that now is the appropriate time to address outstanding issues that have stalled the IP Transition and continued to cause the industry heartburn and disputes. HD Tandem also agrees with the widespread recognition that the existing geographically-based public switched telephone network ("PSTN"), as we know it, is obsolete and outdated, and the legacy TDM-based network serves as an obstacle to the IP Transition. The

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[3] *See Transformation Order*.

[4] *Id*. at ¶242.

[5] *Id.*at ¶34-35, 41.

PSTN has not changed much in 100 years[6] despite the fact that we all have moved on to modern communications technologies that would be better served by a modern regulatory framework.

Today's world of non-geographic communications methods, with applications calling applications, no longer depends upon telephone number based addressing or PSTN dial-out capabilities. Continuing to saddle new technologies with outdated, legacy rules that tie the network to irrelevant geographic parameters is exactly the wrong thing to do as the industry continues to evolve at an ever increasing pace. Rather than fixing the outdated PSTN, the FCC should take advantage of this opportunity to create a regulatory environment in which IP-based technologies flourish and providers have the incentives to engage in the IP Transition for the benefit of the public interest.

To date, the FCC has sought to encourage the IP Transition by merely chipping away at legacy regulations designed for the PSTN.[7] This piecemeal deregulatory approach has failed to have the intended effect because deregulating the antiquated TDM-based system relegates consumers to this legacy network and does nothing to expedite the IP Transition. HD Tandem believes that the FCC should instead design a new regulatory framework through an IP lens, as opposed to through a PSTN lens. This new framework would incentivize carriers through price relief and superior technology to expedite the IP Transition. Importantly, the FCC should adopt the new framework now, but create regulatory glide paths rather than adopting regulatory flash cuts.

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[6] The 4 kHz dedicated two-way voice system designed and implemented in 1880s by Alexander Graham Bell, and the 56 kbps digital incarnation of the same system, is still the fundamental basis of the current regulated system.

[7] *See Transformation Order* at ¶16.

II. The FCC Can and Should Address Various Outstanding Industry Concerns

The FCC must address several pieces of the intercarrier compensation puzzle that continue to perplex the industry in order to jumpstart the IP Transition in a way that fosters competition and innovation. For example, HD Tandem agrees with some parties that mileage-sensitive charges can be problematic,[8] and that traffic for voice applications poses particular concerns about geography-dependent charges. Applications can be located anywhere in the country, which calls into question the need to impose geographic-based charges on related traffic.

Historically, it was advantageous for local carriers located in rural areas to host applications providers because the rules at the time allowed rate-of-return regulated rural incumbent local exchange carriers ("ILECs") and competitive local exchange carriers ("CLECs") that qualified for the rural exemption to charge higher access rates than the typical price cap ILEC.[9] Such rural carriers faced substantially higher costs to provide service, so these intercarrier compensation revenues provided a necessary and important implicit subsidy. In addition to higher rates, transport distances (*i.e.*, the distance between the end office and the tandem) were often substantially higher than average.

While most rural carriers have high transport mileage simply as a result of geographically dispersed population centers, the high rates have created industry heartburn and disputes. Some Iowa LECs, for example, manipulated points of interconnection with their tandem provider with

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[8] *AT&T Services, Inc., Petition of AT&T Services, Inc. for Forbearance Under 47 U.S.C. § 160(c)*, WC Docket No. 16-363 (filed Sept. 30, 2016) (AT&T Petition) at 9-10 (explaining that even as terminating end office access charges have declined under the Commission's transition to bill-and-keep, carriers have been able to maintain, and even expand, access stimulation schemes by billing excessive transport, and "inflat[ing] the mileage used to compute the transport charges"); *see also In the Matter of AT&T Petition for Forbearance from Certain Rules for Switched Access Services and Toll Free Database Dip Charges*, Comments of Inteliquent, Inc., Bandwidth.com, Inc. and Onvoy, LLC, WC Docket No. 16-363 (Filed Dec. 2, 2016).

[9] 47 CFR §61.26(e).

the specific intent of inflating mileage charges (i.e., "mileage pumping"). In fact, one of the LECs increased its mileage more than ten-fold with this strategy.[10]

For traffic associated with "access stimulation," the Transformation Order largely eliminated the draw of the rural area pricing advantages by changing the rate benchmarking to the lowest priced price cap LEC in the state.[11] There are still complaints, however, regarding high mileage charges based not on high rural *prices* but rather high rural transport *distances*.

III. HD Tandem Supports A Holistic and Comprehensive Fresh IP Approach

HD Tandem supports, as have other commenters, a holistic approach[12] to further reform and believes that the FCC can address outstanding concerns without jeopardizing the viability of intermediate tandem service providers. Going one step further, HD Tandem also proposes a new regulatory framework to expedite the IP Transition that envisions creating different routes for different types of traffic, and allowing originating carriers the ability to choose over which route to send their traffic. To that end, if a local provider is hosting high-volume voice applications, then the provider should be required also to offer an Internet Protocol Homing Tandem ("IPHT") – like HD Tandem. The trigger for requiring the establishment of an IPHT should be the same as the FCC adopted in the Transformation Order for identifying access stimulation:[13]

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[10] *See In the Matter of AT&T Corp., Complainant, v. Alpine Communications, LLC, Clear Lake Independent Telephone Co., Mutual Telephone Co. of Sioux Center, Iowa, Preston Telephone Co., and Winnebago Cooperative Telephone Association, Defendants*, Memorandum Opinion and Order, File No.: EB-12-MD-003 (2012).

[11] *See Transformation Order* at ¶679.

[12] *In the Matter of Connect America Fund, Establishing Just and Reasonable Rates for Local Exchange Carriers, Developing an Unified Intercarrier Compensation Regime*; WC Docket No. 10-90, WC Docket No. 07-135, CC Docket No. 01-92; Reply Comments of Consolidated Communications Companies, Peerless Network, Inc., and West Telecom Services, LLC.

[13] *See Transformation Order* at ¶33.

1) An access revenue sharing agreement,[14] and

2) Either an interstate terminating-to-originating traffic ratio of at least 3:1 in a calendar month, or more than a 100 percent growth in interstate originating and/or terminating switched access minutes of use in a month compared to the same month in the preceding year.[15]

The IPHT would charge a non-mileage-sensitive rate (as HD Tandem does today), which is based on other consumer benefits offered, such as transcoding, CODEC integration, record maintenance, fraud detection and other public services, as opposed to mileage distance. The provider can still home to a legacy TDM tandem, but also would be required to home to a new application tandem that is not saddled with legacy regulations or traditional rate structure.

Under HD Tandem's proposal, carriers sending traffic destined for a high-volume voice application would always have the option to send traffic via the IPHT and realize some rate relief they have been seeking. In addition to the rate reduction for the voice application traffic, the carrier would receive the same rate relief for any other traffic destined to that rural carrier. This proposal will eliminate the potential for a plethora of billing disputes by setting two clear rates for two alternative routes, to be decided upon the originating carrier. Essentially, this solution takes geographic charges out of the equation.[16] It would provide some immediate price relief for carriers while also creating a regulatory environment that continues to foster competition and cultivate the growth of the application industry.

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[14] *Id.*

[15] *Id.*

[16] HD Tandem does not currently have any geographic charges.

IV. HD Tandem's IP Proposal Serves the Public Interest and Provides Consumer Benefits

HD Tandem's proposed alternative IPHT solution would serve the public interest and provide a host of wide-ranging consumer benefits. First, this holistic and comprehensive approach serves the general public interest by offering an industry-wide solution as opposed to a narrow case-by-case approach or a broad forbearance approach. Second, this solution immediately addresses industry concerns and finishes what the Commission started in 2011. This solution therefore also would help to stimulate the IP Transition by encouraging industry provides to embrace IP networks and technologies instead of a continued reliance on the TDM networks of the past. As a result, this new regulatory construct would cultivate an environment that is ripe for ongoing broadband deployment and continued innovation in the applications and technologies of the future. Furthermore, by recognizing the non-geographic nature of the Internet and of voice applications, the FCC can help rural America by driving companies and industries to such traditionally remote locations. This solution would help the FCC address other broader public policy concerns, such as rural call completion problems by providing a complete genealogy of the call path, and ongoing fraud issues, by supporting technologies that have aided in stopping certain types of fraud including SIM card fraud. Finally, and most importantly, this solution provides a true jumpstart to the IP Transition.

V. Conclusion

HD Tandem appreciates the opportunity to refresh the record and the opportunity to present its solution to expedite the IP Transition. HD Tandem believes that the solution

proposed herein provides the most efficient and viable IP Transition for all, while at the same time promoting the public interest and a host of consumer benefits.

Respectfully submitted,

/s/ David Erickson
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